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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,903	02/08/2002	Tomohiro Suzuki	219315US2	8034

22850 7590 02/08/2005

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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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JOYCE, WILLIAM C

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/067,903

Applicant(s)

SUZUKI ET AL.

Examiner

William C. Joyce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 5-8 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,13 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 9-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to the amendment filed November 5, 2004 for the above identified patent application.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, and 9-12 rejected under 35 U.S.C. 102(b) as being anticipated by the prior art reference to JP 11-141636.

The prior art reference to JP 11-141636 illustrates a friction transmission unit having an input member (13) and an output member (17) in rolling contact with the input member via a contact region, for transmitting rotation of the input member to the output member by means of friction force, wherein a profile defined by a function indicating a gap in a direction (z) which is found between the contact region of the input member and the contact region of the output member when the input member and the output member are assumed to contact each other through an applied load is a profile other

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than a circular arc profile, and the gap (z) being on a plane perpendicular to a vector indicating friction force caused between the input member and the output member.

Figures 4a-b illustrate a contact stress distribution which monotonically decreases in areas near edges of the contact region on the plane perpendicular to a vector indicating the friction force, the shape of contact stress distribution being a shape formed when a substantially rated load is applied to the input member and the output member, and the contact stress monotonically decreases in areas near edges of the contact region.

3. Claims 1, 2, 9, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Okoshi (US Patent 6,482,121).

The prior art reference to Okoshi illustrates a friction transmission unit having an input member (91,92) and an output member (90) in rolling contact with the input member via a contact region, for transmitting rotation of the input member to the output member by means of friction force, wherein a profile defined by a function indicating a gap in a direction (z) which is found between the contact region of the input member and the contact region of the output member when the input member and the output member are assumed to contact each other through an applied load is a profile other than a circular arc profile, and the gap (z) being on a plane perpendicular to a vector indicating friction force caused between the input member and the output member.

Figures 12 and 13 illustrate a contact stress distribution which monotonically decreases in areas near edges of the contact region on the plane perpendicular to a

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vector indicating the friction force, the shape of contact stress distribution being a shape formed when a substantially rated load is applied to the input member and the output member, and the contact stress monotonically decreases in areas near edges of the contact region.

***Allowable Subject Matter***

4. Claims 3, 4, 13, and 14 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (703) 305-5114. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William C. Joyce